

# Ready Reckoner

Snapshot of India's Oil & Gas data

December, 2016



**Petroleum Planning & Analysis Cell**

(Ministry of Petroleum & Natural Gas)

## Index of Tables

| Table | Description   | Page  |
|-------|---|-------|
|       | Highlights for the month  | 2-3   |
| 1     | Selected indicators of the Indian economy                             | 4     |
| 2     | Crude oil, LNG and petroleum products at a glance                     | 5     |
| 3     | Indigenous crude oil production                                       | 6     |
| 4     | Domestic oil & gas production vis-à-vis overseas production           | 6     |
| 5     | High Sulphur (HS) & Low Sulphur (LS) Crude Oil processing             | 6     |
| 6     | Quantity and value of crude oil imports                               | 7     |
| 7     | Self-sufficiency in petroleum products                                | 7     |
| 8     | Refineries: Installed capacity and crude oil processing               | 8-9   |
| 9     | Major crude oil and product pipeline network                          | 9     |
| 10    | Gross Refining Margins (GRM) of refineries                            | 10    |
| 11    | GRM of North-East refineries excluding excise duty benefit            | 11    |
| 12    | Production and consumption of petroleum products                      | 11    |
| 13    | LPG consumption   | 12    |
| 14    | Kerosene allocation vs upliftment                                     | 12    |
| 15    | Industry marketing infrastructure                                     | 12    |
| 16    | Natural gas at a glance   | 13    |
| 17    | Coal Bed Methane (CBM) gas development in India                       | 13    |
| 18    | Gas pipelines under execution/ construction                           | 14    |
| 19    | Existing LNG terminals  | 14    |
| 20    | Status of PNG connections, CNG stations and CNG vehicles across India | 15-17 |
| 21    | Major natural gas pipeline network                                    | 17    |
| 22    | Domestic natural gas price and gas price ceiling                      | 17    |
| 23    | Information on prices, taxes and under-recoveries                     | 18-19 |
| 24    | Capital expenditure of PSU oil companies                              | 20    |
| 25    | Conversion factors and volume conversion                              | 21    |

## Highlights for the month

|  |  |
|--|--|
|  | <ul style="list-style-type: none"><li>Indigenous crude oil production during December, 2016 was lower by 0.8% than that of December, 2015. On cumulative basis, it was lower by 3.2% than that of April-December, 2015. There was a reduction of crude oil production by 0.3 MMT in BH, 0.3 MMT in Mangla and 0.2 MMT in Ravva fields.</li></ul>   |
|  | <ul style="list-style-type: none"><li>Total crude oil processed during December, 2016 was 21.4 MMT, an increase of 6.4% over December, 2015. This is the highest crude oil processing during any month till date. On cumulative basis, it was 183.9 MMT, an increase of 7.8% over the period April-December, 2015. Increase of 13.3 MMT on cumulative basis was mainly due to Paradip refinery processing 5.2 MMT, increase of 2.0 MMT in processing by Essar oil Limited and 1.0 MMT each by BPCL-Mumbai, MRPL and CPCL-Manali refineries.</li></ul>              |
|  | <ul style="list-style-type: none"><li>Production of petroleum products during December, 2016 saw a growth of 5.6% over December, 2015. Production during December 2016 was the highest during the year 2016-17 and the second highest production during any month till date. On cumulative basis a growth of 6.8% was recorded in production over the period April-December, 2015.</li></ul>   |
|  | <ul style="list-style-type: none"><li>Imports increased by 39.6% during December, 2016 over the corresponding period of 2015 due to increase in domestic consumption of LPG (7.9%) and petcoke (28.8%). LPG, Lubes and Pet-coke imports contributed to 79.9 % share of total POL imports during December, 2016. Export of POL products increased by 8.8% during December, 2016 as compared to December, 2015 primarily due to increase in production of ATF (23.6%) and HSD (6.5%) coupled with low demand materialization of HSD during December, 2016.</li></ul> |

|  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>Petroleum product consumption registered a growth of 4.3% during December, 2016 as compared to 8.3% growth during December, 2015. Except for SKO, Naphtha and Bitumen, all other products registered positive growth during December, 2016. During the period April-December 2016, petroleum product consumption registered a growth of 8.8% as compared to the same period last year.</li> </ul> |
|  | <ul style="list-style-type: none"> <li>Gross production of natural gas for the month of December, 2016 was 2,737 MMSCM which was same as compared with the corresponding month of the previous year. However, the cumulative gross production of natural gas 23,885 MMSCM for the current year till December, 2016 was lower by 3.4 % compared with the corresponding period of the previous year.</li> </ul>                            |
|  | <ul style="list-style-type: none"> <li>LNG import for the month of December, 2016 was 1,903 MMSCM which was 2.9 % lower than the corresponding month of the previous year. The cumulative import of 18,755 MMSCM for the current year till December, 2016 was higher by 19.9% compared with the corresponding period of the previous year.</li> </ul>  |
|  | <ul style="list-style-type: none"> <li>The prices of Brent crude averaged \$53.60/bbl during December, 2016 as against \$45.13/bbl during November, 2016. The Indian basket crude averaged \$52.74/bbl during December, 2016 as against \$44.46/bbl during the previous month.</li> </ul>  |
|  | <ul style="list-style-type: none"> <li>The import bill of crude oil is estimated to increase by 12.4% from \$ 64 billion in 2015-16 to \$72 billion in 2016-17 considering Indian basket crude oil price of \$ 55/bbl and \$/Rs 67 for the balance part of the financial year.</li> </ul>  |

## 1. Selected indicators of the Indian economy

| Economic indicators |  | Unit/Base | 2012-13                           | 2013-14                           | 2014-15                           | 2015-16 <sup>(P)</sup>         |
|---------------------|--|-----------|-----------------------------------|-----------------------------------|-----------------------------------|--------------------------------|
| 1                   | Population (as on 1 <sup>st</sup> March, 2011) | Billion   | 1.2                               | -                                 | -                                 | -                              |
| 2                   | GDP at Factor Cost (Constant prices)           | Growth %  | 5.6<br><small>2nd RE (NS)</small> | 6.6<br><small>2nd RE (NS)</small> | 7.2<br><small>1st RE (NS)</small> | 7.6<br><small>(PE)</small>     |
| 3                   | Agricultural Production (Food grains)          | MMT       | 257.1                             | 265.0                             | 252.0                             | 252.2<br><small>4th AE</small> |
|                     |  | Growth %  | -0.8                              | 3.1                               | -4.9                              | 0.1                            |
| 4                   | Gross Fiscal Deficit                           | %         | -4.9                              | -4.5                              | -4.1                              | -3.9<br><small>(RE)</small>    |

| Economic indicators | Unit/<br>Base                               | 2014-15    | 2015-16 <sup>(P)</sup> | December |                     | April-December |                     |       |
|---------------------|---|------------|------------------------|----------|---------------------|----------------|---------------------|-------|
|                     |   |            |                        | 2015     | 2016 <sup>(P)</sup> | 2015           | 2016 <sup>(P)</sup> |       |
| 5                   | Index of Industrial Production <sup>@</sup> | Growth %   | 2.8                    | 2.4      | -3.4                | 5.7            | 3.8                 | 0.4   |
| 6                   | Imports                                     | \$ Billion | 448.0                  | 381.0    | 34.1                | 34.3           | 297.4               | 275.4 |
| 7                   | Exports                                     | \$ Billion | 310.3                  | 262.3    | 22.6                | 23.9           | 197.3               | 198.8 |
| 8                   | Trade Balance                               | \$ Billion | -137.7                 | -118.7   | -11.5               | -10.4          | -100.1              | -76.5 |
| 9                   | Foreign Exchange Reserves                   | \$ Billion | 341.4                  | 355.6    | 252.0               | 360.3          | -                   | -     |

@IIP is for the month of November 2016; NS-New Series; AE-Advanced Estimates; RE-Revised Estimates; PE- Provisional Estimates;

\*As on December 25, 2015; ^As on December 30, 2016.

## 2. Crude oil, LNG and petroleum products at a glance

| Details                                  |  | Unit/<br>Base | 2014-15 | 2015-16 | December |                     | April-December |                     |
|--|--|---------------|---------|---------|----------|---------------------|----------------|---------------------|
|  |  |               |         |         | 2015     | 2016 <sup>(P)</sup> | 2015           | 2016 <sup>(P)</sup> |
| 1  | Crude oil production in India                              | MMT           | 37.5    | 36.9    | 3.1      | 3.1                 | 27.9           | 27.0                |
| 2  | Consumption of petroleum products                          | MMT           | 165.5   | 184.7   | 15.8     | 16.5                | 134.6          | 146.4               |
| 3  | Production of petroleum products                           | MMT           | 220.7   | 231.2   | 20.0     | 21.1                | 169.9          | 181.5               |
| 4  | Imports & exports:   |               |         |         |          |                     |                |                     |
| Crude oil imports                        |  | MMT           | 189.4   | 202.9   | 16.6     | 17.9                | 149.3          | 161.7               |
|  |  | \$ Billion    | 112.7   | 64.0    | 4.8      | 6.3                 | 52.7           | 50.6                |
| Petroleum products (POL) imports         |  | MMT           | 21.3    | 29.5    | 2.1      | 3.1                 | 21.2           | 27.8                |
|  |  | \$ Billion    | 12.1    | 10.0    | 0.7      | 0.9                 | 8.0            | 7.5                 |
| Gross petroleum imports<br>(Crude + POL) |  | MMT           | 210.7   | 232.3   | 18.8     | 20.9                | 170.5          | 189.4               |
|  |  | \$ Billion    | 124.9   | 73.9    | 5.5      | 7.2                 | 60.7           | 58.1                |
| Petroleum products exports               |  | MMT           | 63.9    | 60.5    | 5.3      | 5.3                 | 43.8           | 49.1                |
|  |  | \$ Billion    | 47.3    | 27.1    | 2.3      | 2.5                 | 21.4           | 21.1                |
| LNG imports                              |  | \$ Billion    | 9.2     | 6.7     | 0.6      | 0.5                 | 5.0            | 3.8                 |
| 5  | Petroleum imports as % of India's gross imports (in value) | %             | 27.9    | 19.4    | 16.1     | 21.0                | 20.4           | 21.1                |
| 6  | Petroleum exports as % of India's gross exports (in value) | %             | 15.2    | 10.3    | 10.1     | 10.7                | 10.9           | 10.6                |
| 7  | Import dependency of crude (on consumption)                | %             | 78.5%   | 80.9%   | 82.1%    | 82.0%               | 80.3%          | 82.3%               |

### 3. Indigenous crude oil production (Million Metric Tonne)

| Details   | 2014-15      | 2015-16      | December    |                   |                     | April-December |                   |                     |
|---|--------------|--------------|-------------|-------------------|---------------------|----------------|-------------------|---------------------|
|   |              |              | 2015        | 2016<br>(Target)* | 2016 <sup>(P)</sup> | 2015           | 2016<br>(Target)* | 2016 <sup>(P)</sup> |
| ONGC  | 18.6         | 18.5         | 1.6         | 1.9               | 1.6                 | 14.0           | 16.9              | 13.7                |
| Oil India Limited (OIL)                         | 3.4          | 3.2          | 0.3         | 0.3               | 0.3                 | 2.5            | 2.5               | 2.4                 |
| Private / Joint Ventures (JVs)                  | 11.7         | 11.3         | 0.9         | 0.9               | 0.9                 | 8.6            | 8.2               | 8.0                 |
| <b>Total Crude Oil</b>                          | <b>33.8</b>  | <b>33.1</b>  | <b>2.7</b>  | <b>3.2</b>        | <b>2.7</b>          | <b>25.0</b>    | <b>27.6</b>       | <b>24.1</b>         |
| Condensate                                      | 3.7          | 3.8          | 0.3         |                   | 0.4                 | 2.9            |                   | 2.9                 |
| <b>Total (Crude + Condensate) (MMT)</b>         | <b>37.5</b>  | <b>36.9</b>  | <b>3.1</b>  | <b>3.2</b>        | <b>3.1</b>          | <b>27.9</b>    | <b>27.6</b>       | <b>27.0</b>         |
| <b>Total (Crude + Condensate) (Million Bbl)</b> | <b>274.7</b> | <b>270.8</b> | <b>22.6</b> | <b>23.1</b>       | <b>22.4</b>         | <b>204.9</b>   | <b>202.1</b>      | <b>198.2</b>        |

\*Target is inclusive of condensate. Note: Some sub-totals/ totals may not add-up due to rounding off at individual levels

### 4. Domestic oil & gas production vis-à-vis overseas production

| Details   | 2014-15      | 2015-16 <sup>(P)</sup> | December     |                     | April-December |                     |
|---|--------------|------------------------|--------------|---------------------|----------------|---------------------|
|   |              |                        | 2015         | 2016 <sup>(P)</sup> | 2015           | 2016 <sup>(P)</sup> |
| Total domestic production (MMTOE)               | 71.1         | 69.2                   | 5.8          | 5.8                 | 52.6           | 50.9                |
| Overseas production (MMTOE)                     | 9.6          | 9.7                    | 0.8          | 1.5                 | 7.3            | 10.0                |
| Overseas production as % of domestic production | <b>13.5%</b> | <b>14.0%</b>           | <b>14.6%</b> | <b>26.4%</b>        | <b>13.8%</b>   | <b>19.7%</b>        |

Source - ONGC Videsh, GAIL, OIL, IOCL & HPCL

### 5. High Sulphur (HS) & Low Sulphur (LS) crude oil processing (MMT)

| Details  | 2014-15      | 2015-16 <sup>(P)</sup> | December     |                     | April-December |                     |
|--|--------------|------------------------|--------------|---------------------|----------------|---------------------|
|  |              |                        | 2015         | 2016 <sup>(P)</sup> | 2015           | 2016 <sup>(P)</sup> |
| 1 High Sulphur crude                                   | 161.4        | 166.1                  | 14.6         | 15.8                | 121.8          | 133.6               |
| 2 Low Sulphur crude                                    | 61.9         | 66.7                   | 5.5          | 5.6                 | 48.8           | 50.3                |
| <b>Total crude processed</b>                           | <b>223.3</b> | <b>232.9</b>           | <b>20.2</b>  | <b>21.4</b>         | <b>170.6</b>   | <b>183.9</b>        |
| <b>Share of HS crude in total crude oil processing</b> | <b>72.3%</b> | <b>71.3%</b>           | <b>72.6%</b> | <b>73.8%</b>        | <b>71.4%</b>   | <b>72.6%</b>        |

## 6. Quantity and value of crude oil imports

| Year                | Quantity (MMT) | \$ Million | Rs. Crore |
|---------------------|----------------|------------|-----------|
| 2015-16 (Actuals)   | 202.85         | 63,972     | 4,16,579  |
| 2016-17 (Estimated) | 215.60         | 71,908     | 4,82,408  |

Note:: April-December 2016 imports are based on actuals and for January 2017 to March 2017, the imports are estimated at \$55/bbl and Rs.67/\$.

Impact of variation in Crude oil price & Exchange rate on Crude oil imports for January 2017-March 2017:

If crude prices increase by one \$/bbl - Net Import bill increases by Rs.2,663 crores (\$ 0.40 bn)

If exchange rate of \$ increases by Rs. 1/\$ - Net Import bill increases by Rs. 2,186 crores (\$ 0.32 bn)

## 7. Self-sufficiency in petroleum products (Million Metric Tonnes)

| Details                           |   | 2014-15      | 2015-16 <sup>(P)</sup> | December     |                     | April-December |                     |
|-----------------------------------|---|--------------|------------------------|--------------|---------------------|----------------|---------------------|
|                                   |   |              |                        | 2015         | 2016 <sup>(P)</sup> | 2015           | 2016 <sup>(P)</sup> |
| 1                                 | Indigenous crude oil processing :                             | 34.2         | 34.1                   | 2.7          | 2.9                 | 25.7           | 25.0                |
| a)                                | Products from indigenous crude (93.3% of crude oil processed) | 32.0         | 31.8                   | 2.6          | 2.7                 | 24.0           | 23.3                |
| b)                                | Products from fractionators (Including LPG and Gas)           | 3.7          | 3.4                    | 0.3          | 0.3                 | 2.6            | 2.6                 |
| 2                                 | Total production from indigenous crude & condensate (a + b )  | 35.6         | 35.2                   | 2.8          | 3.0                 | 26.6           | 25.9                |
| 3                                 | Total domestic consumption                                    | 165.5        | 184.7                  | 15.8         | 16.5                | 134.6          | 146.4               |
| <b>% Self-sufficiency (2 / 3)</b> |   | <b>21.5%</b> | <b>19.1%</b>           | <b>17.9%</b> | <b>18.0%</b>        | <b>19.7%</b>   | <b>17.7%</b>        |



## 8. Refineries: Installed capacity and crude oil processing (MMTPA / MMT)

| Com-<br>pany | Refinery          | Installed<br>capacity<br>(1.4.2016) | 2014-15     | 2015-16     | Crude oil processing |                  |                     |                  |                  |                     |
|--------------|-------------------|-------------------------------------|-------------|-------------|----------------------|------------------|---------------------|------------------|------------------|---------------------|
|              |                   |                                     |             |             | December             |                  |                     | April-December   |                  |                     |
|              |                   |                                     |             |             | 2015<br>(Actual)     | 2016<br>(Target) | 2016 <sup>(P)</sup> | 2015<br>(Actual) | 2016<br>(Target) | 2016 <sup>(P)</sup> |
| IOCL         | Barauni (1964)    | 6.0                                 | 5.9         | 6.5         | 0.6                  | 0.5              | 0.6                 | 4.9              | 4.7              | 4.9                 |
|              | Koyali (1965)     | 13.7                                | 13.3        | 13.8        | 1.2                  | 0.9              | 1.1                 | 10.2             | 10.2             | 10.7                |
|              | Haldia (1975)     | 7.5                                 | 7.7         | 7.8         | 0.7                  | 0.7              | 0.5                 | 5.8              | 5.9              | 5.8                 |
|              | Mathura (1982)    | 8.0                                 | 8.5         | 8.9         | 0.8                  | 0.7              | 0.8                 | 6.5              | 6.6              | 6.9                 |
|              | Panipat (1998)    | 15.0                                | 14.2        | 15.3        | 1.3                  | 1.3              | 1.3                 | 11.3             | 11.4             | 11.7                |
|              | Guwahati (1962)   | 1.0                                 | 1.0         | 0.9         | 0.07                 | 0.08             | 0.07                | 0.7              | 0.7              | 0.7                 |
|              | Digboi (1901)     | 0.7                                 | 0.6         | 0.6         | 0.04                 | 0.06             | 0.05                | 0.4              | 0.5              | 0.4                 |
|              | Bongaigaon(1979)  | 2.4                                 | 2.4         | 2.4         | 0.2                  | 0.2              | 0.2                 | 1.8              | 1.8              | 1.9                 |
|              | Paradip (2016)    | 15.0                                | -           | 1.8         | -                    | 1.1              | 1.0                 | -                | 6.8              | 5.2                 |
|              | <b>IOCL TOTAL</b> | <b>69.2</b>                         | <b>53.6</b> | <b>58.0</b> | <b>4.9</b>           | <b>5.6</b>       | <b>5.7</b>          | <b>41.7</b>      | <b>48.5</b>      | <b>48.1</b>         |
| CPCL         | Manali (1969)     | 10.5                                | 10.2        | 9.1         | 0.5                  | 0.9              | 0.7                 | 6.5              | 7.8              | 7.8                 |
|              | CBR (1993)        | 1.0                                 | 0.5         | 0.5         | 0.02                 | 0.05             | 0.04                | 0.4              | 0.5              | 0.4                 |
|              | <b>CPCL-TOTAL</b> | <b>11.5</b>                         | <b>10.8</b> | <b>9.6</b>  | <b>0.5</b>           | <b>0.9</b>       | <b>0.7</b>          | <b>6.8</b>       | <b>8.3</b>       | <b>8.2</b>          |
| BPCL         | Mumbai (1955)     | 12.0                                | 12.8        | 13.4        | 1.1                  | 1.2              | 1.3                 | 9.9              | 10.6             | 10.8                |
|              | Kochi (1966)      | 9.5                                 | 10.4        | 10.7        | 0.9                  | 0.7              | 1.0                 | 8.0              | 8.0              | 8.5                 |
| BORL         | Bina (2011)       | 6.0                                 | 6.2         | 6.4         | 0.5                  | 0.5              | 0.6                 | 4.7              | 4.4              | 4.7                 |
| NRL          | Numaligarh (1999) | 3.0                                 | 2.8         | 2.5         | 0.2                  | 0.3              | 0.3                 | 1.8              | 2.0              | 2.0                 |
|              | <b>BPCL-TOTAL</b> | <b>30.5</b>                         | <b>32.2</b> | <b>33.0</b> | <b>2.8</b>           | <b>2.7</b>       | <b>3.2</b>          | <b>24.4</b>      | <b>25.1</b>      | <b>26.0</b>         |

| Com-<br>pany | Refinery              | Installed<br>capacity<br>(1.4.2016) | 2014-15      | 2015-16      | Crude oil processing |                  |                     |                  |                  |                     |
|--------------|-----------------------|-------------------------------------|--------------|--------------|----------------------|------------------|---------------------|------------------|------------------|---------------------|
|              |                       |                                     |              |              | December             |                  |                     | April-December   |                  |                     |
|              |                       |                                     |              |              | 2015<br>(Actual)     | 2016<br>(Target) | 2016 <sup>(P)</sup> | 2015<br>(Actual) | 2016<br>(Target) | 2016 <sup>(P)</sup> |
| ONGC         | Tatipaka (2001)       | 0.1                                 | 0.1          | 0.1          | 0.007                | 0.004            | 0.007               | 0.05             | 0.03             | 0.06                |
| MRPL         | Mangalore (1996)      | 15.0                                | 14.6         | 15.5         | 1.5                  | 1.5              | 1.5                 | 11.1             | 11.3             | 11.9                |
|              | <b>ONGC TOTAL</b>     | <b>15.1</b>                         | <b>14.7</b>  | <b>15.6</b>  | <b>1.5</b>           | <b>1.5</b>       | <b>1.5</b>          | <b>11.2</b>      | <b>11.3</b>      | <b>12.0</b>         |
| HPCL         | Mumbai (1954)         | 6.5                                 | 7.4          | 8.0          | 0.7                  | 0.7              | 0.8                 | 5.8              | 6.1              | 6.3                 |
|              | Visakh (1957)         | 8.3                                 | 8.8          | 9.2          | 0.8                  | 0.8              | 0.9                 | 6.7              | 6.7              | 6.9                 |
| HMEL         | Bathinda (2012)       | 9.0                                 | 7.3          | 10.7         | 0.9                  | 0.8              | 0.9                 | 8.3              | 7.1              | 8.0                 |
|              | <b>HPCL- TOTAL</b>    | <b>23.8</b>                         | <b>23.5</b>  | <b>27.9</b>  | <b>2.5</b>           | <b>2.3</b>       | <b>2.6</b>          | <b>20.8</b>      | <b>19.8</b>      | <b>21.2</b>         |
| RIL*         | Jamnagar (DTA) (1999) | 33.0                                | 30.9         | 32.4         | 2.8                  | 2.8              | 2.8                 | 24.2             | 24.2             | 24.8                |
|              | Jamnagar (SEZ) (2008) | 27.0                                | 37.2         | 37.1         | 3.2                  | 3.2              | 3.2                 | 27.6             | 27.6             | 27.9                |
| EOL          | Vadinar (2006)        | 20.0                                | 20.5         | 19.1         | 1.8                  | 1.7              | 1.8                 | 13.9             | 15.3             | 15.8                |
|              | <b>All India</b>      | <b>230.1</b>                        | <b>223.3</b> | <b>232.9</b> | <b>20.2</b>          | <b>20.8</b>      | <b>21.4</b>         | <b>170.6</b>     | <b>180.0</b>     | <b>183.9</b>        |

\* RIL target for 2016-17 is previous year crude processing. Note: Some sub-totals/ totals may not add up due to rounding off at individual levels.

## 9. Major crude oil and product pipeline network

|                  |             | ONGC  | OIL   | Cairn | HMEL  | IOCL  | BPCL  | HPCL  | Other | Total         |
|------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|---------------|
| <b>Crude Oil</b> | Length (KM) | 1,180 | 1,193 | 670   | 1,017 | 4,867 | 937   |       | -     | <b>9,864</b>  |
| (as on 1.4.2016) | Cap (MMTPA) | 57.1  | 8.4   | 8.7   | 9.0   | 40.4  | 6.0   | -     | -     | <b>129.6</b>  |
| <b>Products</b>  | Length (KM) | -     | 654   | -     | -     | 6,739 | 1,935 | 2,957 | 2,687 | <b>14,972</b> |
| (as on 1.4.2016) | Cap (MMTPA) | -     | 1.7   | -     | -     | 40.2  | 14.9  | 31.6  | 9.3   | <b>97.7</b>   |

**Other** includes GAIL and Petronet India.

### 10. Gross Refining Margins (GRM) of refineries (\$/bbl)

| Company | Refinery       | 2013-14     | 2014-15     | 2015-16     | Apr-Sep`16  |
|---------|----------------|-------------|-------------|-------------|-------------|
| IOCL    | Barauni        | 6.68        | -1.20       | 2.93        | 6.17        |
|         | Koyali         | 4.52        | 4.79        | 6.80        | 7.22        |
|         | Haldia         | 2.84        | -1.51       | 3.96        | 6.94        |
|         | Mathura        | 2.10        | -2.19       | 3.30        | 6.11        |
|         | Panipat        | 3.62        | -1.97       | 4.15        | 7.33        |
|         | Guwahati       | 6.38        | 8.68        | 15.88       | 22.44       |
|         | Digboi         | 15.41       | 13.73       | 16.17       | 22.74       |
|         | Bongaigaon     | 6.71        | -0.26       | 11.09       | 18.12       |
|         | Paradip        | -           | -           | -0.65       | 1.43        |
|         | <b>Average</b> | <b>4.24</b> | <b>0.27</b> | <b>5.06</b> | <b>7.19</b> |
| BPCL    | Kochi          | 4.80        | 3.17        | 6.87        | 4.50        |
|         | Mumbai         | 3.95        | 3.97        | 6.37        | 4.61        |
|         | <b>Average</b> | <b>4.33</b> | <b>3.62</b> | <b>6.59</b> | <b>4.56</b> |
| HPCL    | Mumbai         | 5.38        | 4.88        | 8.09        | 5.89        |
|         | Visakhapatnam  | 1.50        | 1.12        | 5.46        | 4.40        |
|         | <b>Average</b> | <b>3.43</b> | <b>2.84</b> | <b>6.68</b> | <b>5.12</b> |
| CPCL    | Chennai        | 4.08        | 1.97        | 5.27        | 5.59        |
| MRPL    | Mangalore      | 2.67        | -0.64       | 5.20        | 7.26        |
| NRL     | Numaligarh     | 12.09       | 16.67       | 23.68       | 28.24       |
| BORL    | Bina           | 7.70        | 6.10        | 11.70       | 11.50       |
| RIL     | Jamnagar       | 8.10        | 8.60        | 10.80       | 10.80       |
| Essar   | Vadinar        | 7.98        | 8.37        | 10.81       | *           |

\*Being unlisted company, quarterly results not declared.

| 11. GRM of North-East refineries excluding excise duty benefit (\$/bbl) |            |         |         |         |            |
|---|------------|---------|---------|---------|------------|
| Company   | Refinery   | 2013-14 | 2014-15 | 2015-16 | Apr-Sep'16 |
| IOCL  | Guwahati   | 0.88    | 0.96    | 1.26    | 1.15       |
|   | Digboi     | 8.50    | 5.42    | 4.16    | 6.84       |
|   | Bongaigaon | 2.34    | -6.51   | 0.08    | 5.17       |
| NRL   | Numaligarh | 6.98    | 9.46    | 8.06    | 8.40       |

| 12. Production and consumption of petroleum products (Million Metric Tonnes) |                   |                      |                   |                      |                   |                      |                     |                      |                         |                      |
|--|-------------------|----------------------|-------------------|----------------------|-------------------|----------------------|---------------------|----------------------|-------------------------|----------------------|
| Products   | April-March 2016  |                      | December 2015     |                      | December 2016 (P) |                      | April-December 2015 |                      | April-December 2016 (P) |                      |
|  | Prod <sup>n</sup> | Consump <sup>n</sup> | Prod <sup>n</sup> | Consump <sup>n</sup> | Prod <sup>n</sup> | Consump <sup>n</sup> | Prod <sup>n</sup>   | Consump <sup>n</sup> | Prod <sup>n</sup>       | Consump <sup>n</sup> |
| LPG  | 10.6              | 19.6                 | 0.9               | 1.8                  | 1.1               | 1.9                  | 7.6                 | 14.3                 | 8.3                     | 15.9                 |
| MS   | 35.3              | 21.8                 | 3.1               | 1.8                  | 3.0               | 2.0                  | 26.0                | 16.1                 | 27.1                    | 18.0                 |
| NAPHTHA  | 17.9              | 13.3                 | 1.6               | 1.1                  | 1.7               | 1.1                  | 13.1                | 9.9                  | 14.7                    | 10.1                 |
| ATF  | 11.8              | 6.3                  | 1.0               | 0.5                  | 1.2               | 0.6                  | 8.2                 | 4.6                  | 10.3                    | 5.1                  |
| SKO  | 7.5               | 6.8                  | 0.6               | 0.6                  | 0.4               | 0.4                  | 5.6                 | 5.1                  | 4.6                     | 4.2                  |
| HSD  | 98.6              | 74.6                 | 8.6               | 6.5                  | 9.1               | 6.5                  | 72.8                | 55.2                 | 76.6                    | 57.2                 |
| LDO  | 0.4               | 0.4                  | 0.04              | 0.04                 | 0.07              | 0.04                 | 0.3                 | 0.3                  | 0.4                     | 0.3                  |
| LUBES  | 1.0               | 3.6                  | 0.08              | 0.3                  | 0.08              | 0.3                  | 0.8                 | 2.5                  | 0.8                     | 2.5                  |
| FO/LSHS  | 10.7              | 6.6                  | 0.8               | 0.5                  | 1.3               | 0.6                  | 8.3                 | 4.7                  | 9.5                     | 5.5                  |
| BITUMEN  | 5.2               | 5.9                  | 0.5               | 0.6                  | 0.4               | 0.6                  | 3.5                 | 4.0                  | 3.7                     | 4.1                  |
| OTHERS   | 32.2              | 25.6                 | 2.7               | 2.1                  | 2.7               | 2.5                  | 23.8                | 17.9                 | 25.6                    | 23.4                 |
| <b>ALL INDIA</b>   | <b>231.2</b>      | <b>184.7</b>         | <b>20.0</b>       | <b>15.8</b>          | <b>21.1</b>       | <b>16.5</b>          | <b>169.9</b>        | <b>134.6</b>         | <b>181.5</b>            | <b>146.4</b>         |
| <b>Growth (%)</b>  | <b>4.8%</b>       | <b>11.6%</b>         | <b>2.4%</b>       | <b>8.3%</b>          | <b>5.6%</b>       | <b>4.3%</b>          | <b>2.9%</b>         | <b>9.8%</b>          | <b>6.8%</b>             | <b>8.8%</b>          |

Note: Prod<sup>n</sup> - Production; Consump<sup>n</sup> - Consumption

| 13. LPG consumption (Thousand Metric Tonne)                           |                 |                 |                |                     |                          |                 |                     |              |
|---|-----------------|-----------------|----------------|---------------------|--------------------------|-----------------|---------------------|--------------|
| LPG category  | 2014-15         | 2015-16         | December       |                     |                          | April-December  |                     |              |
|   |                 |                 | 2015           | 2016 <sup>(P)</sup> | Gr (%)                   | 2015            | 2016 <sup>(P)</sup> | Gr (%)       |
| <b>1. PSU Sales :</b>   |                 |                 |                |                     |                          |                 |                     |              |
| LPG-Packed Domestic   | 16,040.4        | 17,181.7        | 1568.0         | 1696.4              | 8.2                      | 12559.2         | 13900.1             | 10.7         |
| LPG-Packed Non-Domestic   | 1,051.0         | 1,464.4         | 142.2          | 159.5               | 12.1                     | 1058.1          | 1304.5              | 23.3         |
| LPG-Bulk  | 315.7           | 317.2           | 24.5           | 30.4                | 23.8                     | 240.5           | 269.7               | 12.2         |
| Auto LPG  | 163.8           | 170.9           | 14.2           | 14.4                | 1.8                      | 127.5           | 124.5               | -2.4         |
| <b>Sub-Total (PSU Sales)</b>  | <b>17,570.9</b> | <b>19,134.2</b> | <b>1,748.9</b> | <b>1,900.7</b>      | <b>8.7</b>               | <b>13,985.2</b> | <b>15,598.8</b>     | <b>11.5</b>  |
| <b>2. Direct Private Imports</b>                                      | <b>429.2</b>    | <b>489.0</b>    | <b>46.9</b>    | <b>37.5</b>         | <b>-20.2</b>             | <b>333.5</b>    | <b>290.6</b>        | <b>-12.9</b> |
| <b>Total (1+2)</b>  | <b>18,000.1</b> | <b>19,623.2</b> | <b>1,795.9</b> | <b>1,938.1</b>      | <b>7.9</b>               | <b>14,318.8</b> | <b>15,889.4</b>     | <b>11.0</b>  |
| 14. Kerosene allocation vs upliftment (Kilo Litres)                   |                 |                 |                |                     |                          |                 |                     |              |
| Product   | 2014-15         |                 | 2015-16        |                     | 2016-17 (Apr-Dec'16) (P) |                 |                     |              |
|   | Allocation      | Upliftment      | Allocation     | Upliftment          | Allocation               | Upliftment      |                     |              |
| Kerosene  | 8975538         | 8878352         | 8685384        | 8536757             | 5472586                  | 5262678         |                     |              |
| 15. Industry marketing infrastructure (as on 1.10.2016) (Provisional) |                 |                 |                |                     |                          |                 |                     |              |
| Particulars   | IOCL            | BPCL            | HPCL           | RIL                 | ESSAR                    | SHELL           | Others              | Total        |
| POL Terminal/ Depots (Nos.)   | 129             | 84              | 86             | 18 <sup>S</sup>     |                          | 2               | 4*                  | 323          |
| Aviation Fuel Stations (Nos.)   | 102             | 42              | 37             | 27                  |                          |                 | 1@                  | 209          |
| Retail Outlets (total) (Nos.)   | 25,627          | 13,619          | 13,978         | 1,400               | 2,682                    | 83              | 4^                  | 57,393       |
| LPG Distributors (total) (Nos.) (PSUs only)                           | 9,289           | 4,560           | 4,365          |                     |                          |                 |                     | 18,214       |
| SKO/LDO agencies (Nos.)   | 3,905           | 1,001           | 1,638          |                     |                          |                 |                     | 6,544        |
| LPG Bottling plants (Nos.) (PSUs only)                                | 91              | 51              | 46             |                     |                          |                 |                     | 188          |
| LPG Bottling capacity (TMTPA) (PSUs only)                             | 8,365           | 3,585           | 3,552          |                     |                          |                 |                     | 15,502       |
| Rural ROs (Nos.)  | 6,811           | 2,401           | 2,891          | 127                 | 840                      | 10              |                     | 13,080       |
| RGGLVY (Nos.)   | 2,810           | 1,404           | 1,366          |                     |                          |                 |                     | 5,580        |
| LPG registered domestic consumers (Nos. crore) (PSUs only)            | 10.53           | 5.44            | 5.59           |                     |                          |                 |                     | 21.56        |

\* 4 MRPL ; @ 1 AFS-Shell MRPL ; ^ 4-MRPL; \$RIL= 5 Terminal and 13 Mini Depot

## 16. Natural gas at a glance

(MMSCM)

| Details  | 2014-15 | 2015-16 <sup>(P)</sup> | December            |                  |                     | April-December      |                  |                     |
|--|---------|------------------------|---------------------|------------------|---------------------|---------------------|------------------|---------------------|
|  |         |                        | 2015 <sup>(P)</sup> | 2016<br>(Target) | 2016 <sup>(P)</sup> | 2015 <sup>(P)</sup> | 2016<br>(Target) | 2016 <sup>(P)</sup> |
| (a) Gross production   | 33,657  | 32,249                 | 2,737               | 3,030            | 2,737               | 24,697              | 25,152           | 23,885              |
| - ONGC   | 22,023  | 21,177                 | 1,819               | 2,041            | 1,927               | 16,272              | 16,724           | 16,420              |
| - Oil India Limited (OIL)  | 2,722   | 2,838                  | 266                 | 247              | 246                 | 2,120               | 2,261            | 2,212               |
| - Private / Joint Ventures (JVs)   | 8,912   | 8,235                  | 652                 | 743              | 564                 | 6,305               | 6,168            | 5,254               |
| (b) Net production   | 32,693  | 31,138                 | 2,648               |                  | 2,643               | 23,836              |                  | 23,087              |
| (c) LNG import   | 18,536  | 21,309                 | 1,960               |                  | 1,903               | 15,637              |                  | 18,755              |
| (d) Total consumption including internal consumption (Net production+Import) (b+c) | 51,229  | 52,448                 | 4,608               |                  | 4,546               | 39,472              |                  | 41,842              |
| (e) Total consumption (in BCM)   | 51.23   | 52.45                  | 4.61                |                  | 4.55                | 39.47               |                  | 41.84               |
| (f) Import dependency based on consumption {c/d*100}                               | 36.18   | 40.63                  | 42.53               |                  | 41.86               | 39.61               |                  | 44.82               |

## 17. Coal Bed Methane (CBM) gas development in India

|                                    |                      |         |
|------------------------------------|----------------------|---------|
| Prognosticated CBM resources       | 92                   | TCF     |
| Established CBM resources          | 9.9                  | TCF     |
| Total available coal bearing areas | 26,000               | Sq. KM  |
| Exploration initiated              | 17,200               | Sq. KM  |
| Blocks awarded                     | 33                   | Nos.    |
| Production of CBM gas              | December, 2016       | 53.135  |
| Production of CBM gas-Cumulative   | April-December, 2016 | 420.646 |

### 18. Gas pipelines under execution / construction as on 30.9.2016

| Network/ Region  | Entity                          | Length (KM)   | Design Cap. (MMSCMD) | Pipeline Size           |
|--|---------------------------------|---------------|----------------------|-------------------------|
| Kochi-Kottanad-Bengaluru-Mangalore                                     | GAIL (India) Ltd                | 1,063         | 16                   | 24"/18"/12"             |
| Dabhol - Bengaluru (DBPL)  | GAIL (India) Ltd                | 315           | 16                   | 36"/30"/24"/18"         |
| Surat - Paradip  | GAIL (India) Ltd                | 2,112         | 74.81                | 36"/24"/18"             |
| Jagdishpur- Haldia-Bokaro Dhamra                                       | GAIL (India) Ltd                | 2,539         | 16                   | 30"/24"/18"/12"/8"/4"   |
| Mallavaram – Bhopal - Bhilwara   | GSPC India Transco Ltd          | 2,042         | 78.25                | 42"/36"/30"/24"/18"/12" |
| Mehsana - Bathinda   | GSPC India Gasnet Ltd           | 2,052         | 77.11                | 36"/24"/18"/12"         |
| Bathinda - Jammu - Srinagar  | GSPC India Gasnet Ltd           | 725           | 42.42                | 24"/18"/16"/12"/8"/6"   |
| Kakinada - Vizag - Srikakulam  | AP Gas Distribution Co.         | 391           | 90                   | 24"/18"/8"/4"           |
| Shahdol - Phulpur  | Reliance Gas Pipelines Ltd      | 312           | 3.5                  | 16"                     |
| Ennore - Nellore   | Gas Transmission India Pvt. Ltd | 250           | 36                   | 24"/18"                 |
| Ennore-Thiruvallur-Bengaluru-Puducherry-Nagapattinam-Madurai-Tuticorin | Indian Oil Corporation Limited  | 1,385         | 84.67                | 28"/24"/16"/12"/10"     |
| Jaigarh-Mangalore  | H-Energy Pvt..Ltd.              | 635           | 17                   | 24"                     |
| <b>Total</b>   |                                 | <b>13,821</b> |                      |                         |

### 19. Existing LNG terminals as on 01.10.2016

| Existing              | Promoters                 | Capacity (MMTPA)  | Capacity Utilisation in %                     |
|-----------------------|---------------------------|---|---|
| Dahej                 | Petronet LNG Ltd (PLL)    | 10 MMTPA up to July, 2016 increased to 15 MMTPA from August, 2016     | Apr -July, 2016- 125.00 Aug-Sep, 2016 - 98.00 |
| Hazira                | Hazira LNG Pvt Ltd (HLPL) | 5 MMTPA   | 83.6  |
| Dabhol                | RGPPL (GAIL - NTPC JV)    | 1.692 MMTPA in phase-1 without break water to be increased to 5 MMTPA | 40.4  |
| Kochi                 | Petronet LNG Ltd (PLL)    | 5 MMTPA   | 5.0   |
| <b>Total Capacity</b> |                           | <b>26.692 MMTPA</b>   |   |

## 20. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.)

| State                 | Entity operating  | Geographical region   | CNG stations    | PNG connections |                 |                 | No. of CNG vehicles |
|-----------------------|---|---|-----------------|-----------------|-----------------|-----------------|---------------------|
|                       |   |   |                 | Domestic        | Industrial      | Commercial      |                     |
|                       |   |   | As on 1.12.2016 | As on 1.12.2016 | As on 1.12.2016 | As on 1.12.2016 | As on 1.10.2016     |
| <b>Haryana</b>        | Haryana City Gas, Adani Gas Limited, GAIL Gas Ltd.  | Sonepat, Faridabad, Gurgaon   | 29              | 38,540          | 225             | 143             | 1,28,197            |
| <b>Andhra Pradesh</b> | Bhagyanagar Gas Ltd   | Kakinada, Vijayawada  | 12              | 3,443           | 0               | 41              | 15,606              |
| <b>Telangana</b>      | Bhagyanagar Gas Ltd   | Hyderabad   | 23              | 2,180           | 5               | 5               | 23,448              |
| <b>Assam</b>          | Assam Gas Co. Ltd   | Tinsukia, Dibrugarh, Sibsagar, Jorhat, Golaghat   | 0               | 29,563          | 392             | 979             | 0                   |
| <b>Gujarat</b>        | Sabarmati Gas Ltd, Gujarat Gas Ltd, Adani Energy Ltd, Vadodara Gas Ltd, Hindustan Petroleum Corporation Ltd, Charotar Gas Sahakari Mandal Ltd | Gandhinagar, Mehsana, Sabarkantha, Nadiad, Halol, Hazira, Rajkot, Khambhat, Karjan-Palej, Valsad, Navsari, Surendernagar, Vadodara, Ahmedabad, Surat, Ankleshwar, Bharuch & surrounding areas, Bhavnagar, Jamnagar, Vapi, Anand | 373             | 15,89,502       | 4,070           | 15,455          | 9,84,684            |
| <b>Madhya Pradesh</b> | Aavantika Gas Ltd, GAIL Gas Ltd   | Dewas, Vijaipur, Indore including Ujjain, Gwalior, Pithampura   | 23              | 9,429           | 84              | 47              | 22,352              |
| <b>Rajasthan</b>      | GAIL Gas Ltd  | Kota  | 3               | 187             | 16              | 1               | 4,872               |



## 20. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.)

| State                | Entity operating  | Geographical region   | CNG stations    | PNG connections |                 |                 | No. of CNG vehicles |
|----------------------|---|---|-----------------|-----------------|-----------------|-----------------|---------------------|
|                      |   |   |                 | Domestic        | Industrial      | Commercial      |                     |
|                      |   |   | As on 1.12.2016 | As on 1.12.2016 | As on 1.12.2016 | As on 1.12.2016 | As on 1.10.2016     |
| <b>Maharashtra</b>   | Mahanagar Gas Ltd, Maharashtra Natural Gas Ltd, GAIL Gas Ltd              | Mumbai, Greater Mumbai, Thane & adjoining contiguous areas including Mira Bhayender, Navi Mumbai, Thane City, Ambernath, Bhiwandi, Kalyan, Dombivily, Badlapur, Ulhasnagar, Panvel, Kharghar & Taloja, Pune City including Pimpri-Chinchwad and adjoining contiguous areas of Chakan, Hinjewadi & Talegaon GA | 236             | 9,52,192        | 179             | 3,238           | 6,18,718            |
| <b>Tripura</b>       | Tripura Natural Gas Co. Ltd   | Agartala  | 5               | 26,179          | 49              | 346             | 8,590               |
| <b>West Bengal</b>   | Great Eastern Energy Corporation Ltd                                      | Kolkata   | 7               | 0               | 0               | 0               | 2,882               |
| <b>Uttar Pradesh</b> | GAIL Gas Ltd, Sanwariya Gas, Green Gas, Central U.P. Gas, Siti Energy Ltd | Meerut, Mathura, Agra, Kanpur, Bareilly, Lucknow, Moradabad, Ferozabad, Khurja, Divyapur  | 48              | 41,396          | 479             | 251             | 1,11,981            |

## 20. Status of PNG connections, CNG stations and CNG vehicles across India (Nos.)

| State                | Entity operating     | Geographical region                           | CNG stations    | PNG connections  |                 |                 | No. of CNG vehicles |
|----------------------|----------------------|---|-----------------|------------------|-----------------|-----------------|---------------------|
|                      |                      |   |                 | Domestic         | Industrial      | Commercial      |                     |
|                      |                      |   | As on 1.12.2016 | As on 1.12.2016  | As on 1.12.2016 | As on 1.12.2016 | As on 1.10.2016     |
| New Delhi            | Indraprastha Gas Ltd | NCT of Delhi<br>(Including Noida & Ghaziabad) | 417             | 6,86,670         | 902             | 1,798           | 9,23,276            |
| Karnataka            | Gail Gas Ltd.        | Bengaluru                                     | 2               | 1,066            | 3               | 13              | 10                  |
| Dadra & Nagar Haveli | Gujarat Gas Ltd.     | Dadra & Nagar Haveli                          | 0               | 52               | 0               | 0               | 0                   |
| <b>Total</b>         |                      |   | <b>1,178</b>    | <b>33,80,399</b> | <b>6,404</b>    | <b>22,317</b>   | <b>28,44,616</b>    |

Note : Domestic PNG connection of Karnataka is as on 01.10.2016.

## 21. Major natural gas pipeline network

| Nature of pipeline                  |              | GAIL   | Reliance | GSPL  | ARN  | IOCL | ONGC | Total  |
|-------------------------------------|--------------|--------|----------|-------|------|------|------|--------|
| Natural gas<br>(as on<br>1.10.2016) | Length (KM)  | 11,077 | 1,469    | 2,600 | 811  | 140  | 24   | 16,121 |
|                                     | Cap (MMSCMD) | 206    | 80       | 43    | 3.26 | 9.5  | 6    | 347.8  |

## 22. Domestic natural gas price and gas price ceiling

| Period                      | Domestic Natural Gas price in US\$/MMBTU(GCV basis) | Gas price ceiling in US\$/MMBTU(GCV Basis) |
|-----------------------------|---|--|
| November 2014 - March 2015  | 5.05  | -  |
| April 2015 - September 2015 | 4.66  | -  |
| October 2015 - March 2016   | 3.82  | -  |
| April 2016 - September 2016 | 3.06  | 6.61                                       |
| October 2016 - March 2017   | 2.50  | 5.30                                       |

### 23. Information on Prices, Taxes and Under-recoveries

| International prices/ Exchange rates (\$/bbl)                                  |                           |                                      |            | Price buildup of petroleum products (Rs./litre/Cylinder)   |                         |                      |  |
|--|---------------------------|--------------------------------------|------------|--|-------------------------|----------------------|--|
|  | 2014-15                   | 2015-16                              | Apr-Dec`16 |  | Petrol*                 | Diesel*              |  |
| Crude (Indian Basket)  | 84.16                     | 46.17                                | 45.61      | Price before taxes and dealer commission   | 31.35                   | 30.74                |  |
| Petrol   | 95.45                     | 61.72                                | 55.73      | Central taxes  | 22.07                   | 17.91                |  |
| Diesel   | 96.64                     | 55.02                                | 54.40      | State taxes  | 15.12                   | 8.72                 |  |
| Kerosene   | 96.98                     | 55.71                                | 54.84      | Dealer commission  | 2.60                    | 1.65                 |  |
| LPG (\$/MT)  | 683.87                    | 394.71                               | 348.20     | Retail selling price (RSP)   | 71.14                   | 59.02                |  |
| FO (\$/MT)   | 471.99                    | 235.13                               | 243.43     |  |                         |                      |  |
| Naphtha (\$/MT)  | 717.44                    | 420.14                               | 395.3      |  |                         |                      |  |
| Exchange (Rs./\$ )   | 61.15                     | 65.46                                | 67.12      |  |                         |                      |  |
|  |                           |                                      |            |  | <b>PDS SKO*</b>         | <b>Sub. Dom LPG*</b> |  |
| <b>Customs &amp; excise duty rates (w.e.f. 1.3.2016)</b>                       |                           |                                      |            | Price before taxes and dealer commission   | 16.30                   | 537.77               |  |
|  | <b>Basic customs duty</b> | <b>Excise duty</b>                   |            | Central taxes  | 0                       | 0                    |  |
| Petrol   | 2.50%                     | Rs 21.48/Ltr                         |            | State taxes  | 0.54                    | 0                    |  |
| Diesel   | 2.50%                     | Rs 17.33/Ltr                         |            | Dealer commission  | 1.7                     | 47.69                |  |
| PDS SKO  | Nil                       | NIL                                  |            | Retail Selling Price   | 18.54                   | 585.00               |  |
| Non-PDS SKO  | 5.00%                     | 14.00%                               |            | Less cash compensation (CC) under DBTL   |                         | 121.87               |  |
| Sub. Dom LPG   | NIL                       | NIL                                  |            | CC by OMCs towards uncompensated cost  |                         | 28.42                |  |
| Non Domestic LPG   | 5.00%                     | 8.00%                                |            | Effective cost to consumer after subsidy   |                         | 434.71               |  |
| Furnace Oil (Non-Fert)   | 5.00%                     | 14.00%                               |            |  |                         |                      |  |
| Naphtha (Non-Fert)   | 5.00%                     | 14.00%                               |            | * SKO at Mumbai as on 16th Jan., 2017;. Petrol and diesel at Delhi as on 16th Jan, 2017 and LPG as on 1st Jan, 2017 at Delhi. RSP of Subsidized Dom LPG rounded. |                         |                      |  |
| ATF  | NIL                       | 14% *                                |            | <b>Change in Ex. Rate/ Crude price : Impact on under-recoveries</b>  |                         |                      |  |
| Crude Oil  | NIL+Rs.50/ -MT as NCCD    | NIL+ Cess@<br>20%+Rs.50 /-MT<br>NCCD |            | <b>(Rs. Crores)</b>  | <b>Rs.1/\$ Ex. Rate</b> | <b>\$/bbl Crude</b>  |  |
|  |                           |                                      |            | Impact on under-recovery   | 950                     | 1230                 |  |
| *8% for scheduled commuter airlines from regional connectivity scheme airports |                           |                                      |            | Note: The above calculation for SKO & LPG are based on RTP for Jan, 2017 at level of Crude Price \$51.84/bbl & Ex. Rate Rs.67.95/USD                             |                         |                      |  |

## 23. Information on Prices, Taxes and Under-recoveries

| Under-recoveries & burden sharing   |                     |                          |             |
|---|---------------------|--------------------------|-------------|
|   | 2014-15             | 2015-16                  | Apr-Dec`16  |
| <b>Per unit under-recovery (Rs./litre/Cylinder)</b>   |                     |                          |             |
| Diesel  | 2.70 <sup>^</sup>   | Deregulated              | Deregulated |
| PDS SKO   | 27.93               | 13.47                    | 10.88       |
| Sub. Dom LPG  | 409.72              | 150.82*                  | 76.14*      |
| <b>Total under-recoveries including DBTL (Rs. Crores)</b>   |                     |                          |             |
| Diesel  | 10,935 <sup>^</sup> | Deregulated              | Deregulated |
| PDS SKO   | 24,799              | 11,496                   | 5,721       |
| Sub. Dom LPG#   | 40,551              | 16,074                   | 6,403       |
| Total   | 76,285              | 27,570                   | 12,124      |
| <b>Burden sharing (Rs. Crores)</b>  |                     |                          |             |
|   | 2014-15             | 2015-16                  | Apr-Dec`16  |
| Government  | 31,279              | 26301**                  | 12,120**    |
| Upstream  | 42,822              | 1,251                    | 0           |
| OMCs  | 2,184               | 18                       | 4           |
| <b>Fiscal subsidy under Govt. schemes (Rs. Crores)</b>  |                     |                          |             |
| PDS SKO   | 681                 | Scheme was extended till |             |
| Sub. Dom LPG  | 1,920               | 31.3.2015                |             |
| <p>*Average of DBTL and under-recovery towards non-DBTL; #Includes subsidy under DBTL ( 2014-15: Rs.3,971 cr, 2015-16: Rs.16,056 cr Apr-Dec`16 Rs.6,399 cr; ** Govt. compensation pending disbursement for PDS SKO(2015-16 Rs. 375 cr.&amp; Apr-Dec`16 Rs.4,123 cr); claims pending sanction for PDS SKO and LPG under DBTL for Apr-Dec`16 Rs.1599 cr and Rs.2303 cr respectively. <sup>^</sup>Up to 18.10.2014 only.</p> |                     |                          |             |

| Sales & profit of petroleum sector (Rs. Crores) |          |        |
|---|----------|--------|
| Apr-Sep`16                                      | Turnover | PAT    |
| Upstream Companies (PSU)                        | 63,184   | 12,542 |
| Downstream Companies (PSU)                      | 4,15,246 | 18,116 |
| Standalone Refineries (PSU)                     | 52,165   | 2,569  |
| Private-RIL                                     | 1,53,102 | 14,319 |

| Borrowings of OMCs (Rs. Crores) |              |              |              |
|---------------------------------|--------------|--------------|--------------|
|                                 | As on Mar`15 | As on Mar`16 | As on Sep`16 |
| IOCL                            | 55,248       | 52,469       | 41,885       |
| BPCL                            | 13,098       | 15,976       | 16,056       |
| HPCL                            | 20,335       | 21,337       | 18,070       |

| Petroleum sector contribution to Central/State Govt. |                 |                 |                 |
|--|-----------------|-----------------|-----------------|
|  | 2014-15         | 2015-16         | Apr-Sep`16      |
| Central Government                                   | 1,72,066        | 2,58,443        | 1,40,183        |
| % to total revenue receipt                           | 0.16            | 0.21            | N.A             |
| State Governments                                    | 1,60,554        | 1,60,209        | 83,962          |
| % to total revenue receipt                           | 0.09            | 0.08            | NA              |
| <b>Total (Rs. Crores)</b>                            | <b>3,32,620</b> | <b>4,18,652</b> | <b>2,24,145</b> |

| Subsidy as a % of GDP(at current prices)  |         |         |         |
|---|---------|---------|---------|
|   | 2013-14 | 2014-15 | 2015-16 |
| Petroleum subsidy   | 1.30    | 0.62    | 0.25    |
| <p>Note - GDP figure for 2013-14 are 2<sup>nd</sup> RE, 2014-15 are RE and 2015-16 are PE</p> |         |         |         |

## 24. Capital expenditure of PSU oil companies

| Company                                   | 2013-14        | 2014-15       | 2015-16 <sup>(P)</sup> | April-December |                     |
|---|----------------|---------------|------------------------|----------------|---------------------|
|   |                |               |                        | Target*        | 2016 <sup>(P)</sup> |
| ONGC Videsh Ltd (OVL)                     | 35,357         | 7,172         | 6,783                  | 14,843         | 16,519              |
| ONGC Ltd                                  | 32,470         | 29,997        | 29,502                 | 29,307         | 18,978              |
| Oil India Ltd (OIL)                       | 9,351          | 3,774         | 3,550                  | 4,020          | 9,283               |
| GAIL (India) Ltd                          | 4,070          | 1,632         | 1,880                  | 1,929          | 1,253               |
| Indian Oil Corp. Ltd. (IOCL)              | 16,661         | 14,314        | 14,368                 | 15,395         | 15,423              |
| Hindustan Petroleum Corp. Ltd (HPCL)      | 2,642          | 2,670         | 5,459                  | 6,862          | 3,337               |
| Bharat Petroleum Corp. Ltd (BPCL)         | 4,374          | 6,875         | 10,926                 | 13,097         | 11,977              |
| Mangalore Refinery & Petrochem Ltd (MRPL) | 1,449          | 2,747         | 1,550                  | 600            | 171                 |
| Chennai Petroleum Corp. Ltd (CPCL)        | 229            | 466           | 1,318                  | 1,148          | 782                 |
| Numaligarh Refinery Ltd (NRL)             | 372            | 103           | 237                    | 352            | 287                 |
| Balmer Lawrie Co. Ltd (BL)                | 120            | 80            | 38                     | 50             | 27                  |
| <b>TOTAL</b>                              | <b>107,095</b> | <b>69,830</b> | <b>75,611</b>          | <b>87,603</b>  | <b>78,037</b>       |

\* Targets are for financial year 2016-17 and actual is for April-December, 2016. Budget Estimates are for both Plan and Non-Plan

## 25. Conversion factors and volume conversion

| Weight to volume conversion    |                  |             |  | Volume conversion         |               |
|--------------------------------|------------------|-------------|--|---------------------------|---------------|
| Product                        | Weight (MT)      | Volume (KL) | Barrel (bbl)                           | From                      | To            |
| LPG                            | 1                | 1.844       | 11.60                                  | 1 US Barrel (bbl)         | 159 litres    |
| Petrol (MS)                    | 1                | 1.411       | 8.50                                   | 1 US Barrel (bbl)         | 42 US Gallons |
| Diesel (HSD)                   | 1                | 1.210       | 7.45                                   | 1 US Gallon               | 3.78 litres   |
| Kerosene (SKO)                 | 1                | 1.285       | 7.90                                   | 1 Kilo litre (KL)         | 6.29 bbl      |
| ATF                            | 1                | 1.288       | 8.10                                   | 1 Million barrels per day | 49.8 MMTPA    |
| Light Diesel Oil (LDO)         | 1                | 1.172       | 7.37                                   | <b>Energy conversion</b>  |               |
| Furnace Oil (FO)               | 1                | 1.071       | 6.74                                   | 1 Kilocalorie (kcal)      | 4.187 kJ      |
| Crude Oil                      | 1                | 1.170       | 7.33                                   | 1 Kilocalorie (kcal)      | 3.968 Btu     |
| <b>Exclusive Economic Zone</b> |                  |             |  | 1 Kilowatt-hour (kWh)     | 860 kcal      |
| 200 Nautical Miles             | 370.4 Kilometers |             |  | 1 Kilowatt-hour (kWh)     | 3,412 Btu     |
| <b>Natural gas conversions</b> |                  |             |  |                           |               |
| 1 Standard Cubic Metre         | 35.31 Cubic Feet |             | 1 MMBTU                                | 25.2 SCM @10000 kcal/SCM  |               |
| 1 BCM/year of Gas              | 2.74 MMSCMD      |             | GCV (Gross Calorific Value)            | 10,000 kcal/SCM           |               |
| 1 TCF of Gas Reserve           | 3.88 MMSCMD      |             | NCV (Net Calorific Value)              | 90% of GCV                |               |
| 1 MMTPA of LNG                 | 3.60 MMSCMD      |             | Gas required for 1 MW power generation | 4,541 SCM/day             |               |
| 1 MT of LNG                    | 1,314 SCM        |             | Power generation from 1 MMSCMD of gas  | 220 MW                    |               |